

## In the Claims

1           1.     (currently amended) A method for measuring the presence of oncogenic  
2 activity of intracellular chemical reactions in a cell or cells comprising:

3                     providing substrate molecules for ~~an~~ at least one  
4 oncoprotein ~~containing~~ a label, the labeled substrate molecules  
5 corresponding to chemical reactions whose activity is to be  
6 measured;

7                     providing for the presence of ~~disposing~~ said substrate  
8 molecules within said cell or cells;

9                     allowing said substrate molecules within said cell or cells to  
10 take part in the chemical reaction to produce altered substrate  
11 molecules;

12                    liberating said substrate molecules and said altered  
13 substrate molecules from ~~the single cell~~;

14                    detecting the label to distinguishably identify the substrate  
15 molecules and/or the altered substrate molecules from said cell or  
16 cells; and

17 determining the presence of said chemical reaction from the  
18 presence of modified substrate.

1 2. (original) The method of claim 1 further comprising quantifying the  
2 amounts of detected altered substrate molecules and/or detected unaltered substrate  
3 molecules.

1 3. (currently amended) The method of claim 1 wherein said intracellular  
2 chemical reaction in said cell ~~comprises~~ enzyme catalysis by a kinase to alter the  
3 chemical structure of the substrate molecules.

1 4. (currently amended) The method of claim 1 wherein said altered  
2 substrate molecules exhibit a an altered stereoisomeric form ~~change in chemical~~  
3 ~~structure~~ as compared with the unaltered substrate molecules.

1 5. (original) The method of claim 4, wherein separating said unaltered  
2 substrate molecules and said altered substrate molecules comprises electrophoresis.

1 6. (currently amended) The method of claim 2 wherein quantifying the  
2 amounts of detected altered substrate molecules and/or detected unaltered substrate  
3 molecules comprises detection of the label by fluorescence following separation by  
4 electrophoresis.

1        7.        (currently amended) The method of claim 1/ wherein providing for the  
2        presence of disposing said ~~unaltered~~ substrate molecules within said cell or cells  
3        comprises determining the presence of and using a naturally occurring substrate  
4        molecule within said cell or cells, inducing said substrate molecule to be produced  
5        within said cell or cells, or introducing said substrate molecule into said cell or cells from  
6        outside said cell or cells.

1        8.        (original) The method of claim 1/ wherein introducing said ~~unaltered~~  
2        substrate molecules into said cell or cells from outside said cell or cells comprises  
3        microinjecting, electroporating, optoporation, vesicle fusing, pinocytotic loading, or  
4        associating said substrate molecules with membrane permeant peptides.

1        9.        (currently amended) The method of claim 1 further comprising chemically  
2        stimulating said cell or cells while said unaltered substrate molecules are intracellularly  
3        present prior to liberating said ~~unaltered~~ substrate molecules and said altered substrate  
4        molecules from the single cell or cells.

1        10. (currently amended) The method of claim 9—2 further comprising  
2        chemically stimulating said cell or cells while said ~~unaltered~~ substrate molecules are  
3        intracellularly present prior to liberating said ~~unaltered~~ substrate molecules and said  
4        altered substrate molecules from the single cell or cells, and further comprising  
5        comparing activity of said chemical reaction with a similar activity determined from said  
6        single cell or cells that has not been stimulated.

1        11. (original) The method of claim 1, wherein liberating said ~~unaltered~~  
2        substrate molecules and said altered substrate molecules from the cell or cells  
3        comprises chemical disruption of said ~~single~~ cell or cells, mechanical disruption of said  
4        ~~single~~ cell or cells, or by electrical disruption, or by a combination thereof.

1        12. (currently amended) The method of claim 1, wherein the label is selected  
2        from a group consisting of fluorescent labels, isotopes, labels exhibiting spectrally  
3        preferred ranges of optical absorption, and characterizing electron spin resonance  
4        labels.

1        13. (original) The method of claim 1 wherein the substrate molecules are  
2        polymers.

1           14.   (original) The method of claim 13 wherein the polymers are selected from  
2   a group consisting of peptides, polysaccharide, and nucleic acids.

1           15.   (original) The method of claim 14 wherein said polymers are modified with  
2   a fluorescent label.

1           16.   (currently amended) The method of claim 14 wherein said peptides are  
2   substrates for a kinase that alters said ~~modified~~ peptides by the addition of a phosphate  
3   moiety to a particular amino acid within each peptide.

1           17.   (original) The method of claim 16, wherein said peptide has been  
2   modified by covalent addition of a fluorescent group.

1           18.   (original) The method of claim 1, said substrate molecules comprise  
2   carbohydrates, phospholipids, entire proteins, or organic compounds not ordinarily  
3   found within the cell.

1           19.   (original) The method of claim 1 wherein detecting the label comprises  
2   performing voltammetry or mass spectrometry.

1           20.   (original) The method of claim 1 further comprising simultaneously  
2 performing each of said steps with a plurality of different substrate molecules, each  
3 reporting on a specific chemical reaction within said cell or cells.

21. – 53. (cancelled without prejudice)